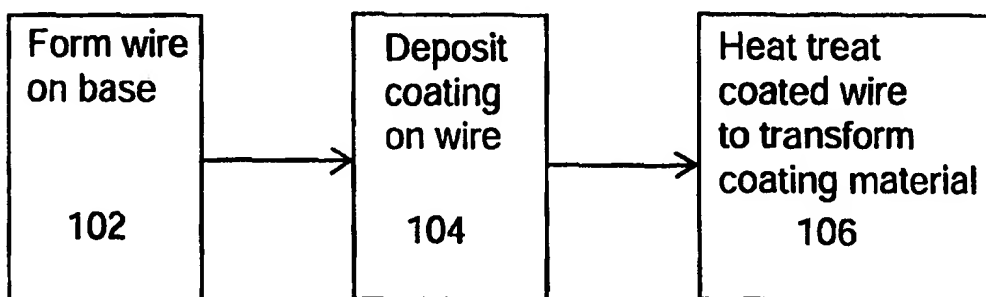




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(54) Title: METHOD OF MAKING A STRUCTURE WITH IMPROVED MATERIAL PROPERTIES BY MODERATE HEAT TREATMENT OF A METAL DEPOSIT

**(57) Abstract**

Deposition of metal in a preferred shape, including coatings (206) on parts (204), or stand-alone materials (300), and subsequent heat treatment (106) to provide improved mechanical properties. In particular, the method gives products with relatively high yield strength. The products often have relatively high elastic modulus, and are thermally stable, maintaining the high yield strength at temperatures considerably above 25 °C. This technique involves depositing a material (206) in the presence of a selected additive, and then subjecting the deposited material to a moderate heat treatment (106). This moderate heat treatment differs from other commonly employed "stress relief" heat treatments in using lower temperatures and/or shorter times, preferably just enough to reorganize the material to the new, desired form. For example, coating and heat treating a spring-shaped elongate member provides a resilient, conductive contact (212, 920, 1060) useful for electronic applications.

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